

PARTITIONED-CAVITY TUNABLE FABRY-PEROT FILTERABSTRACT OF THE INVENTION

A tunable Fabry-Perot filter that is less sensitive to angle of incidence is formed by replacing the cavity (air gap) with a partitioned cavity that has an effective refractive index greater than one. The partitioned cavity includes a pair of partitioned cavity dielectric layers formed on the reflectors on either side of the variable air gap. Each of the dielectric layers has an optical thickness that is less than one fourth the shortest wavelength in the tuning range of the filter. The resulting three-layer partitioned cavity has an effective optical thickness substantially equal to an integral multiple (m) of one half the transmitted wavelength within the tuning range of the filter.